

Energy Opportunities for City of San Jose

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PG&E's Commitment

PG&E is committed to working with its customers to:

- Put energy efficiency first
- Provide opportunities for customers to better manage energy use through demand response
- Increase supplies of renewable energy
- Combat climate change

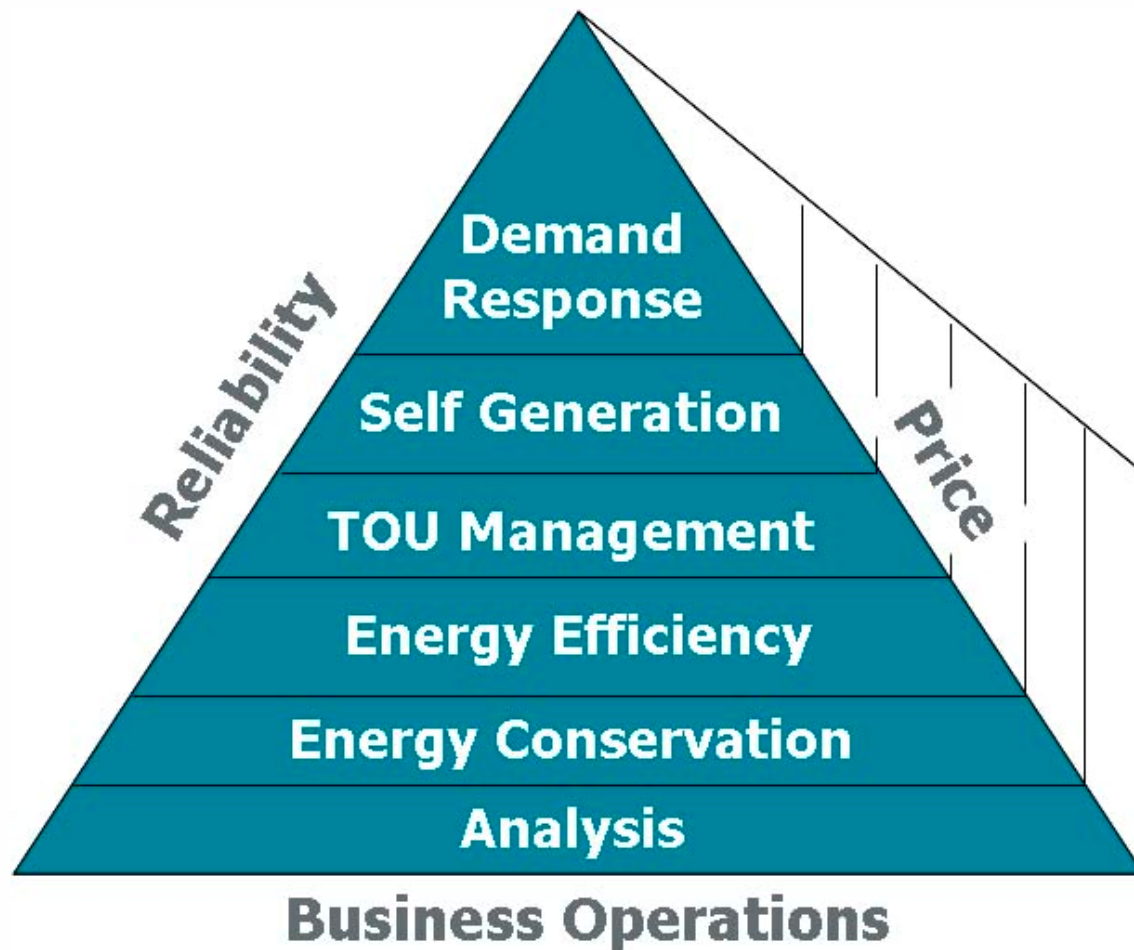
PG&E looks forward to continuing to work with the City of San Jose incorporate these strategies into their plans and programs.

Note: This commitment aligns with the statewide energy priorities adopted by the California Public Utilities Commission in 2005.

PG&E Portfolio Background

- ◆ PG&E has ~ \$1 billion for its PY2006-2008 energy efficiency portfolio
- ◆ Portfolio serves all customers
- ◆ Portfolio is designed to meet State's Energy Action Plan → energy efficiency first
- ◆ Portfolio must achieve cost-effective net kW, kWh and therm goals
- ◆ Goals are significantly higher than in the past

Integrated Demand Side Management



Putting Energy Efficiency First

“I say the debate is over. We know the science. We see the threat. And we know the time for action is now. Global warming and the pollution and burning of fossil fuels that cause it are threats we see here in California and everywhere around the world.”

*Governor Arnold Schwarzenegger,
World Environment Day Conference,
June 1, 2005, San Francisco*

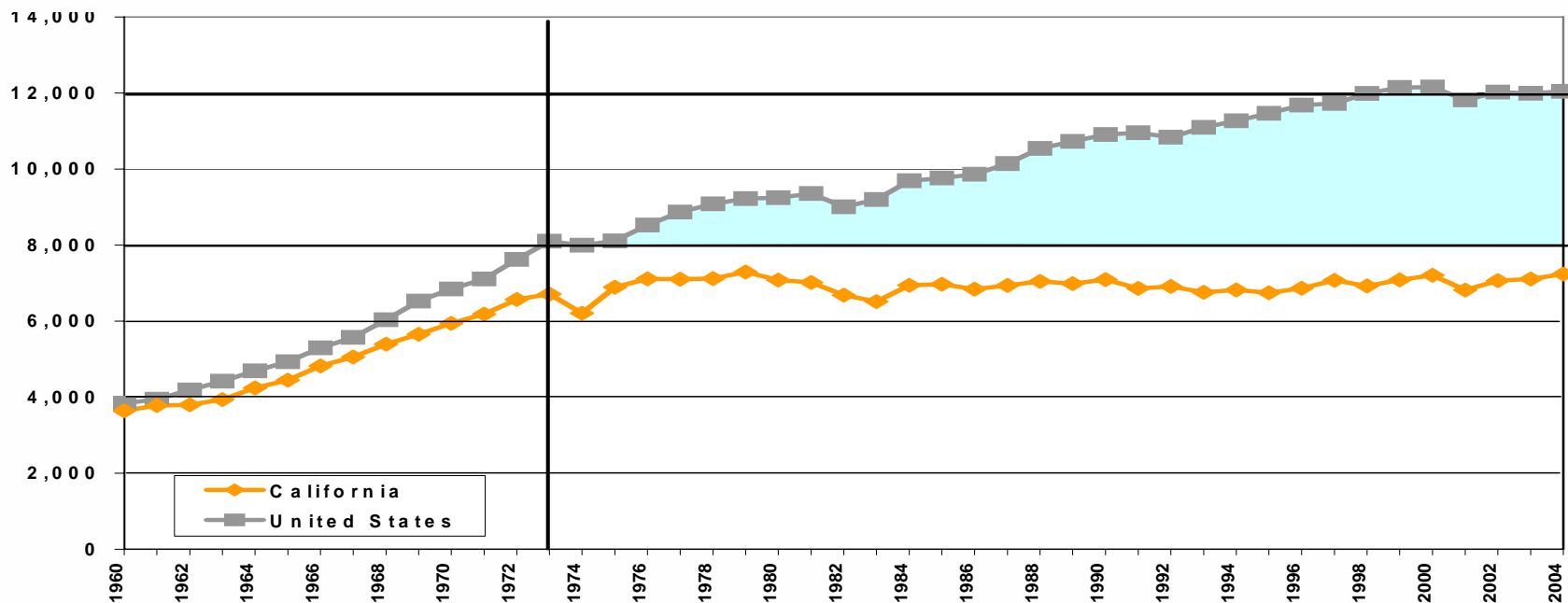
“Energy efficiency is California’s highest-priority resource for meeting its energy needs in a clean, reliable, and low-cost manner.”

*California Public Utilities Commission’s 2006 publication,
Energy Efficiency: California’s Highest-Priority Resource*

“Energy efficiency is the lowest-cost way to meet customers’ energy needs.”
PG&E’s Global Climate Change report

California's 30 Years of Energy Efficiency Success

- Energy efficiency programs have helped keep per capita electricity consumption in California flat over the past 30 years
- PG&E's customers have avoided the release of over 61 million tons of CO₂ into the atmosphere over the same period
 - Equivalent to taking 8.6 million cars off the road for a year



Silicon Valley Energy Watch Partnership

- ◆ City of San Jose and PG&E implemented a successful partnership in 2004 - 2005
- ◆ The 2006 - 2008 Silicon Valley Energy Watch Partnership builds on accomplishments from previous program
- ◆ Partnership provides the City over \$550,000 in funding over three years

Goals of Partnership

- ◆ To ensure that local customers take advantage of the broad range of audits, rebates and other available energy efficiency programs and technical support
- ◆ To enhance the success of PG&E's regional and territory-wide energy efficiency programs through improved coordination and outreach

Partnership Activities

- ◆ Provide comprehensive, objective information on regional energy efficiency programs and services in Santa Clara County
- ◆ Coordinate a series of energy efficiency training workshops
- ◆ Facilitate regional coordination for PG&E/Third Party/Local Government Partnership programs operating within the County

San Jose Investments in Energy Efficiency

- ◆ Recognizing energy efficiency as the lowest cost strategy to fight global climate change, San Jose has already made major investments:
 - Proposed an innovative program to invest funds through the city budget office to take advantage of energy efficiency opportunities
 - Implemented new energy efficiency design standards
 - Sponsored an Energy Watch partnership with PG&E
 - Completed energy efficiency upgrades to numerous municipal buildings and facilities

Exemplars of Energy Efficiency Upgrades in San Jose

- ◆ Traffic Light Retrofit (2006)
 - Change incandescent traffic lights to energy-saving LED lights
 - PG&E rebate of \$309,000
 - Over the life of the lights:
 - Avoid emission of 27,177 tons of CO₂
 - Equivalent to electricity needed to power 7,296 homes
 - Equivalent to taking 3,781 cars off the road
- ◆ Wastewater treatment plant (2006)
- ◆ New City Hall (2005)
- ◆ Martin Luther King, Jr. Library (2003)
 - joint project with San Jose State University

Energy Efficiency: How PG&E Can Partner with San Jose

- ◆ Follow up for recently completed audits
 - San Jose Convention Center
 - San Jose Center for the Performing Arts
- ◆ Additional energy audits
- ◆ Access to funding through continued Partnership, Third Party and core PG&E programs

Demand Response

- ◆ Demand Response programs add temporary electric capacity on very short notice for spikes in load or short term deficiencies in supply
 - In the electric generation business this is called a *peaking* power plant.
- ◆ Some Demand Response programs act as our last line of defense before involuntary outages

PG&E Demand Response Programs

- ◆ PG&E has a variety of programs to fit different needs
- ◆ The more risk involved (i.e., shorter notice, committed load reduction), the higher the incentive
- ◆ San Jose's Mineta International Airport and San Jose's Wastewater Treatment Plant are currently participating in PG&E Demand Response programs

Demand Response: How PG&E Can Partner with San Jose

◆ Audit Services

- Help identify energy efficiency and/or demand response potential in city buildings

◆ Technical Assistance/Technology Incentive (TA/TI)

- Incentives for demand response audits and for the installation of equipment, software, and/or programming that will enable a customer to participate in DR programs

◆ Auto DR Program

- Installation of technology that result in “hands-off” response to DR events

Overview of 2007 Self-Generation Incentive Program (SGIP)

In 2007, incentives are provided for clean and renewable on-site generation

- Wind turbine
- Renewable fuel cells
- Renewable fuel internal combustion engines and large gas turbines
- Solar
- Certain non-renewable technologies (fuel cells, waste gas, etc.)

2007 California Solar Initiative (CSI)

- ◆ The CSI is a long-term solar program that will integrate current solar self generation and other solar programs
 - Statewide goal: 3,000 MW of new solar generation by 2017
- ◆ Provides over \$2 billion in incentives over the next decade
- ◆ High performing systems are rewarded by performance-based incentives
- ◆ Nonresidential and Residential Retrofit projects are administered by PG&E

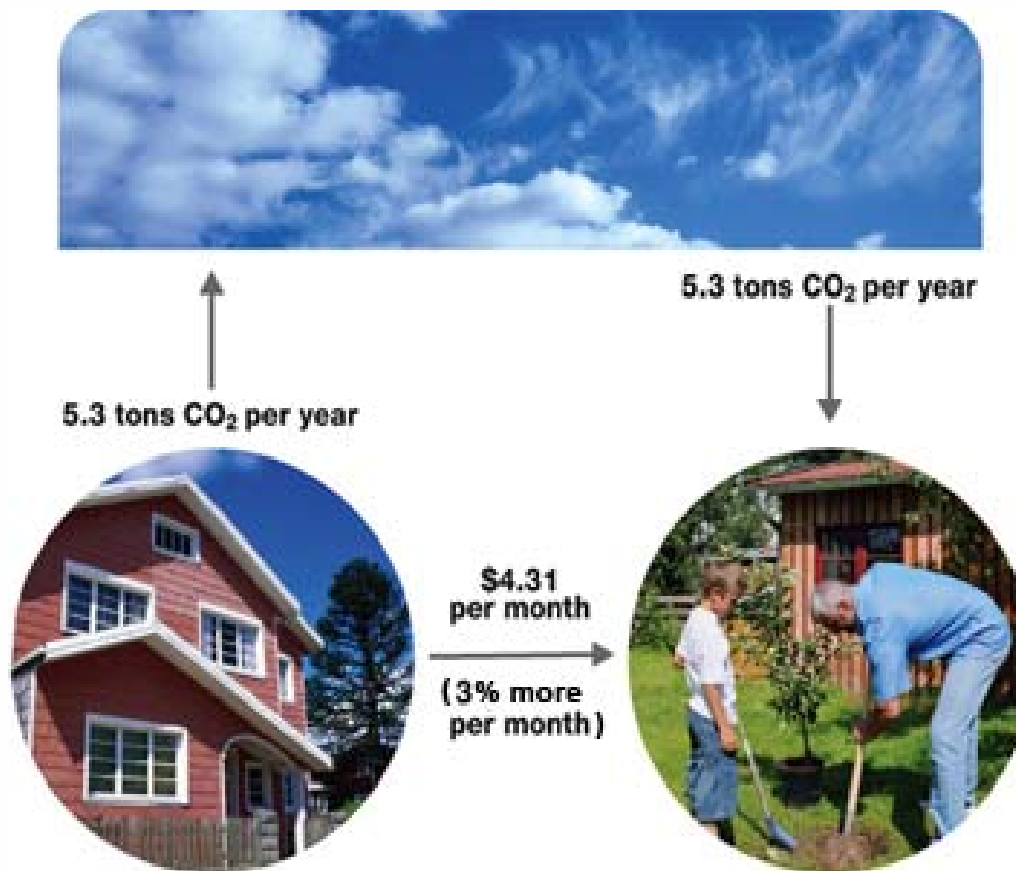
Solar: How PG&E Can Partner with San Jose

- ◆ To participate in CSI, each facility must perform an energy efficiency audit (in 2008, an action must be taken on this audit in order to qualify)
- ◆ Customers must be a PG&E electric customer to participate in PG&E's CSI Program
- ◆ Incentives up to \$2.50 per watt
 - Rebate levels decline as reservations increase

PG&E's Commitment to Combat Climate Change

- ◆ PG&E is committed to leading by example when it comes to global climate change. That means more than just minimizing the greenhouse gas emissions from our operations. It also means maximizing the opportunity we have to lead on efforts to establish responsible policies and programs to address global climate change.
- ◆ Specific examples of PG&E's commitment:
 - ClimateSmart
 - Pilot project with City of San Francisco – “Let's Green This City”

ClimateSmart = Climate Neutral



CO₂ emissions for a typical residential customer are
68% from natural gas and 32% from electricity

ClimateSmart is an innovative new program that allows customers to make their energy use “climate neutral.”

ClimateSmart

- ◆ Customers choose to pay a small amount on their monthly utility bill. This premium will fund new environmental projects aimed at removing an equal amount of CO₂ from the atmosphere.
- ◆ Voluntary program open to residential and business customers
- ◆ Initial premiums will be invested in California forest conservation and restoration projects that remove greenhouse gases from the atmosphere.
- ◆ Launch Date: Spring 2007

ClimateSmart

Benefits of Enrolling

- ◆ Allows San Jose to take action on climate change
- ◆ Improves California's forest and wildlife habitat
- ◆ 100% of premiums will go towards funding emission reduction projects in California
- ◆ All emission reductions will be independently verified, audited, and permanently retired

PG&E's Participation

- ◆ PG&E plans to enroll as the first participant in the program by committing more than \$1 million of shareholder funding over the next three years to make the energy use in the company's offices, service centers, maintenance facilities, and other company buildings completely climate neutral.

Let's Green This City – Case Study



- ◆ Pilot partnership with City of San Francisco
- ◆ Focused on:
 - Improving quality of life
 - Building a healthy, sustainable relationship with the environment
 - Engaging PG&E customers in efforts to “go green”
- ◆ Included:
 - Increased support for energy efficiency programs
 - Educational ad campaign
 - letsgreenthiscity.com

How PG&E Can Partner With San Jose

◆ Energy Efficiency

- Audits
- Access to funding for energy efficiency programs

◆ Demand Response

- Audits
- Technical Assistance
- Automated Demand Response

◆ Solar

- California Solar Initiative funding and support

◆ Climate Change

- ClimateSmart to make San Jose's energy use climate neutral

For More Information

- ◆ **Darren Deffner**

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